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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/743,430

12/23/2003

Frederick Douglass

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7537

2292 7590 02/21/2008  
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EXAMINER

MESFIN, YEMANE

ART UNIT

PAPER NUMBER

2144

NOTIFICATION DATE

DELIVERY MODE

02/21/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

Application No.

10/743,430

Applicant(s)

DOUGLIS ET AL.

Examiner

Yemane Mesfin

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment.***

1. The response received on 11/28/2007 has been entered. Claims 1-22 are now pending in this application.

***Claim Objections***

2. Claim 22 is objected to because of the following informalities: Both claims 21 and 22, reciting the same language depend on same claim 11 (as recited on the newly added claims). However, claim 22 further limiting the method claim should depend on method claim 1.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

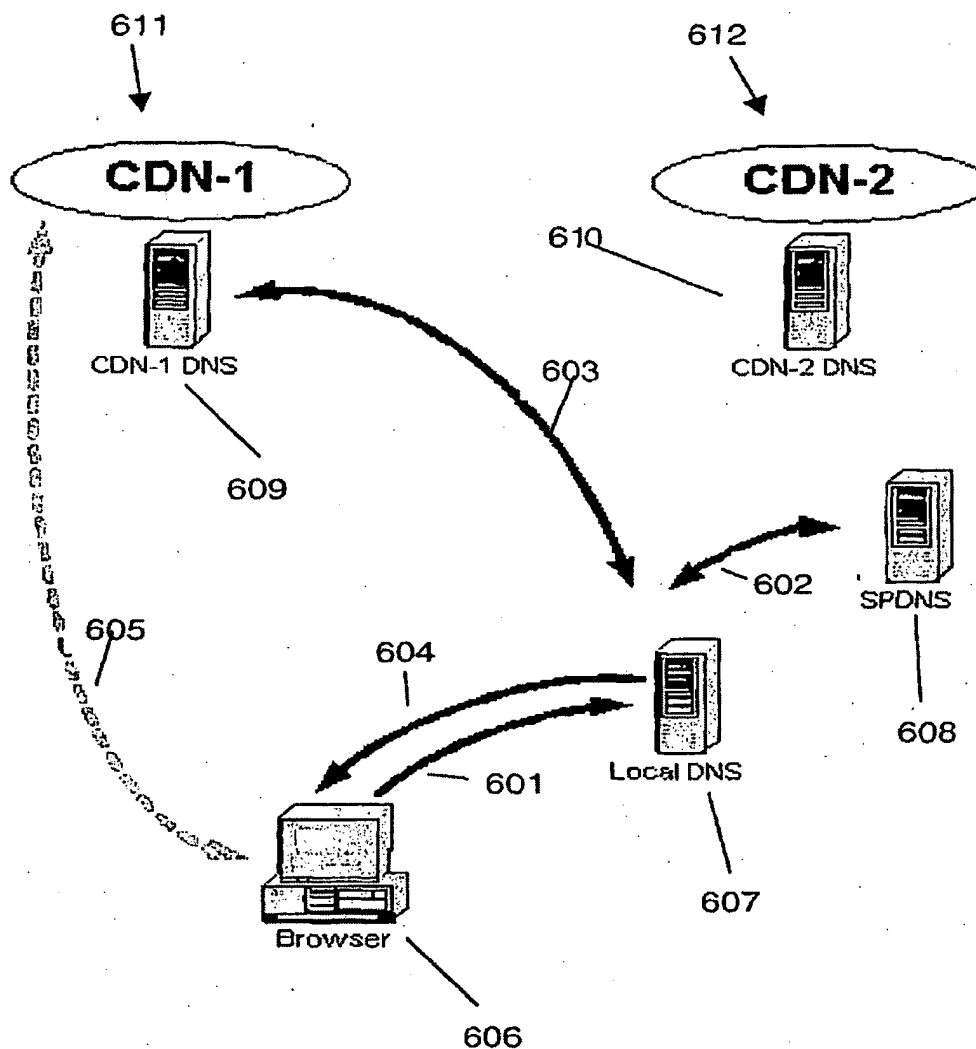
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Day (U.S. Patent Number 7,185,052) in view of Freedman (U.S. Patent Number 7,007,089).

As per claim 1: Day disclosed a system for delivering an integrated web hosting and content distribution affording a predetermined performance level to a client [Abstract, Column 2, Lines 25-27, distributing content based on a predefined capacity reservation... and Column 3, Lines 18-22, ...based on the load/availability of each server...], comprising: a first web hosting server for a web site; at least one content distribution network [Column 3, Lines 15-36, plurality of Content Distribution Networks (CDNs) and an original on-net host server(s)]; a redirection means for receiving DNS requests from access devices through a local DNS [Column 2, Lines 25-29 and Column 5, Lines 39-46]; and monitoring means for monitoring operational performance parameters of the first web hosting server and the at least one content distribution network [Column 2, Lines 25-36 and Column 3, Lines 58-60], the redirection means, the monitoring means, and the at least one content distribution network being under operational control of a primary service provider [See Day, Column 1, Lines 60-63, Column 3, Lines 4-60 and Column 5, Lines 9-13 & 39-67, a combined redirection utilizing a combined Meta CDN, the Meta CDN utilizing a Meta CDN DNS (MCD) server within its own primary on-site provider, performing the functions of both On-Net Architecture and Overlay Architecture) of redirecting received requests to the most optimal distribution server],

wherein, based on signals from the monitoring means, the redirection means of the primary service provider returns a record to the local DNS [Column 8, Lines 18-20, ... the authoritative DNS server returning A record to the local DNS] indicating whether or not the first web hosting server is capable of meeting the predetermined operational performance level, and the redirection means sending the local DNS a record including an IP address of the first web hosting server when a performance value is below a predetermined operational performance level [Column 2, Lines 30-36, the local DNS transmitting a request to the MCD (the authoritative DNS) and the MCD checking load among it's own CDN servers and capable of handling returning A record to the local DNS, where the local DNS forwards the A record to the requesting client enabling to directly access the server/host accordingly], and the redirection means sending the local DNS a different record causing the local DNS to make a subsequent DNS request to a DNS of the at least one content distribution network when the performance value is equal to or above the predetermined operational performance level [Fig. 6 (also disclosed below), Column 3, Lines 18-22 and Column 5, Lines 39-67, redirecting requests in accordance with load/availability of the hosting server and plurality of CDNs, by first receiving a request from a client via a local DNS and going through a Meta DNS server (MCD), which is the authoritative name server and the authoritative name server redirecting/load-balancing based on a predefined performances of the content providers].



**Fig. 6**

Day substantially disclosed the invention as claimed. However, Day was silent about the redirecting taking place based on performance value being below or greater or equal to a predetermined level. However, in the same filed of invention, Freedman disclosed redirecting based on performance value being below, and/or greater or equal to a predetermined level (see Freedman Abstract, and Column 3, Line 53 through Column 4, Line 7, Fig. 2, Column 4,

Lines 5-57, Column 6, Lines 50-55 and Column 10, Lines 16-22). Therefore, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Freedman related to redirecting DNS requests to CDN regions based on predetermined level and have modified the teachings of Day in order to guarantee dependable quality of service (see Freedman, Column 3, Lines 6-7).

As per claim 2: Day disclosed that the first web hosting server and one of the at least one content distribution networks are operated under the control of the primary service provider [Column 2, Lines 30-36, the local DNS transmitting a request to the MCD (the authoritative DNS) and the MCD checking load among it's own CDN].

As per claim 3: Day disclosed that the first web hosting server and the at least one content distribution networks are monitored by, but not operated by, the primary service provider [Column 1, Lines 60-67, Figs. 5-6, and Column 2, Lines 18-36, plurality of independent CDNs their performance monitored by the authoritative DNS (MCD)].

As per claim 4: Day disclosed that the redirection means includes a redirection DNS [Column 5, Lines 39-52, a redirecting authoritative DNS].

As per claim 5: Day disclosed that the redirection means provides application level redirection [Note: DNS by design operates on the application level of standard logical communication layers, thus redirecting is inherently happening at the application level].

As per claim 6: Day disclosed that the monitoring means of the primary service provider receives detailed capacity and health statistics of any of the at least one CDN under the operational control of the primary service provider, and receives aggregate capacity and health statistics from others of the at least-one CDN not under the operational control of the primary service provider [Fig. 6, Column 2, Lines 30-36, Column 3, Lines 18-22 and Column 5, Lines 39-67, the authoritative DNS determining load information of servers associated within its own CDN and plurality of other CDNs].

As per claim 7: Day disclosed that the operational performance level is response time [Column 3, Lines 15-20 & 56-60, latency as the predefined performance metrics of the host(s) and CDNs in communication with the requesting client].

As per claim 8: Day disclosed an integrated provisioning system [Column 5, Lines 9-13 & 39-49, a combined redirection utilizing a combined Meta CDN, the Meta CDN utilizing a Meta CDN DNS (MCD) server managing name resolving of all domains]

As per claim 9: Day disclosed a customer management interface [Column 6, Lines 54-63, operator interface...].

As per claim 10: Day disclosed the system for delivering an integrated service according to claim 1, further comprising an integrated customer billing and reporting system [Column 6, Line 64 through Column 7, Line 6, integrated billing].



As per claim 11: Day disclosed a method for delivering an integrated web hosting and content distribution service which affords a predetermined operational performance level [Abstract, Column 2, Lines 25-27, distributing content based on a predefined capacity reservation... and Column 3, Lines 18-22, ...based on the load/availability of each server...], comprising the steps of: providing a first web hosting server for a web site, at least one content distribution network [Column 3, Lines 15-36, plurality of Content Distribution Networks (CDNs) and an original on-net host server(s)], redirection means [Column 2, Lines 25-29 and Column 5, Lines 39-46], and monitoring means, wherein at least the redirection means, the monitoring means, and the at least one content distribution network are under operational control of a primary service provider of the individual client [See Day, Column 1, Lines 60-63, Column 3, Lines 4-60 and Column 5, Lines 9-13 & 39-67, a combined redirection utilizing a combined Meta CDN, the Meta CDN utilizing a Meta CDN DNS (MCD) server within its own primary on-site provider, performing the functions of both On-Net Architecture and Overlay Architecture) of redirecting received requests to the most optimal distribution server]; receiving a DNS requests from access devices through a local DNS [Fig. 6, DNS request from a client terminal # 606 via a local DNS # 607]; monitoring operational performance parameters of a first web host and at least one content distribution network, wherein, based on signals from the monitoring means, the redirection means of the primary service provider returning a record to the

local DNS indicating whether or not the first web hosting server is capable of meeting a predetermined operational performance level, the record including an IP address of the first web hosting server when a performance value is below a predetermined operational performance level [Column 2, Lines 30-36, the local DNS transmitting a request to the MCD (the authoritative DNS) and the MCD checking load among it's own CDN servers and capable of handling returning A record to the local DNS, where the local DNS forwards the A record to the requesting client enabling the client to directly access the server/host within an optimal CDN ], and the redirection means sending the local DNS a different record causing the local DNS to make a subsequent DNS request to a DNS of the at least one content distribution network when the performance value is equal to or above the predetermined operational performance level [Fig. 6 (also disclosed below), Column 3, Lines 18-22 and Column 5, Lines 39-67, redirecting requests in accordance with load/availability of the hosting server and plurality of CDNs, by first receiving a request from a client via a local DNS and going through a Meta DNS server (MCD), which is the authoritative name server and the authoritative name server redirecting/load-balancing based on a predefined performances of the content providers].

Day substantially disclosed the invention as claimed. However, Day was silent about the redirecting taking place based on performance value being below or greater or equal to a predetermined level. However, in the same filed of invention, Freedman disclosed redirecting based on performance value being

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below, and/or greater or equal to a predetermined level (see Freedman Abstract, and Column 3, Line 53 through Column 4, Line 7, Fig. 2, Column 4, Lines 5-57, Column 6, Lines 50-55 and Column 10, Lines 16-22). Therefore, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the teachings of Freedman related to redirecting DNS requests to CDN regions based on predetermined level and have modified the teachings of Day in order to guarantee dependable quality of service (see Freedman, Column 3, Lines 6-7).

As per claim 12: Day disclosed operating the first web hosting server and one of the at least one content distribution networks under the control of the primary service provider [Column 2, Lines 30-36, the local DNS transmitting a request to the MCD (the authoritative DNS) and the MCD checking load among it's own CDN].

As per claim 13: Day disclosed an integrated service according to claim 11, further comprising the step of: monitoring the first web hosting server and one of the at least one content distribution network by the primary service provider, but not operating the first web hosting server and any of the at least one content distribution networks under the control of the primary service provider [Column 1, Lines 60-67, Figs. 5-6, and Column 2, Lines 18-36, plurality of independent CDNs their performance monitored by the authoritative DNS (MCD)].

As per claim 14: Day disclosed that the redirection means includes a redirection DNS [Column 5, Lines 39-52, a redirecting authoritative DNS].

As per claim 15: Day disclosed that the redirection means provides application level redirection [Note: DNS does operates on the application level of logical layers, thus redirecting is inherently happening at the application level].

As per claim 16: Day disclosed receiving detailed capacity and health statistics of any of the at least one CDN under the operational control of the primary service provider, and receiving only aggregate capacity and health statistics from others of the at least one CDN not under the operational control of the primary service provider [Fig. 6, Column 2, Lines 30-36, Column 3, Lines 18-22 and Column 5, Lines 39-67, the authoritative DNS determining load information of servers associated within its own CDN and plurality of other CDNs].

As per claim 17: Day disclosed that the operational performance level is available bandwidth [Column 3, Lines 15-20 & 56-60, resource load of the plurality of CDNs].

As per claim 18: Day further disclosed an integrated provisioning system [Column 5, Lines 9-13 & 39-49, a combined redirection utilizing a combined Meta CDN, the Meta CDN utilizing a Meta CDN DNS (MCD) server managing name resolving of all domains].

As per claim 19: Day taught a customer management interface [Column 6, Lines 54-63, operator interface...].

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As per claim 20: Day further disclosed the step of providing integrated customer billing and reporting [Column 6, Line 64 through Column 7, Line 6, integrated billing report].

5. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the already combined teachings of Day and Freedman as disclosed above in claims 1 and 11 and further in view of Bartz et al. (U.S. Patent Number 6,701,342).

As per claims 21 and 22: The already combined teachings of Day and Freedman substantially disclosed the invention as recited in claims 1 and 11. However, Day-Freedman was silent about the predetermined operational performance level being a performance level that is agreed to between the primary service provider and the individual client. However, an agreed service level between a client and a service provider known as SLA (Service Level Agreement) was commonly known in the art at the time the invention was made. For example, in these arts, Bartz et al., disclosed processing QoS, and Service Level Agreement (SLA) agreed between individual client and a service provider (See Abstract, Column 1, Line 25 through Column 2, Line 44 and Column 3, Line 6 through Column 4, Line 46). Thus, it is respectfully submitted that it would have been obvious to take the commonly known SLA (evidenced by the teachings of Bartz) and have modified the already combined teachings of Day and Freedman in order to assure individual clients receive

services based on agreed service level and/or to compensate the client for a failure to provide the agreed-upon service level.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 21 and 22 have been considered but are moot in view of the new ground(s) of rejection. However, applicant's argument with respect to claims 1 and 11 is not persuasive.

The applicant argues that Day does not teach "a primary service provider has operation control of redirection means, the monitoring means, and the at least one content distribution network" (see Remark, Page 9, Lines 11-13).

Examiner respectfully disagrees with that line of argument. Day disclosed On-Net Architecture and Overlay Architecture, in both Architectures, Day disclosed a service provider maintaining facility based CDN along with the plurality of servers maintaining traffic on the service provider's own control. In the Overlay Architecture, Day further disclosed plurality of CDN networks, where content requested by requesting clients is distributed. In the On-Net Architecture, Day taught receiving a request via a local DNS at a redirecting component (i.e., authoritative DNS), monitoring server(s) and CDNs load and availability (i.e., operational performance of the servers) and redirecting the request to the best possible server by returning a DNS record to the local DNS to receive the requested content from the most optimal server/CDN in accordance with determined predefined capacity reservation and statically

mapped preferences of certain clients. (See Column 1, Lines 60-63 and Column 3, Lines 4-60 and Column 5, Lines 39-67). Thus, Day unambiguously showed the claimed functional components happening at a control of a primary service provider.

**Note:** If further prosecution on the merits of the instant application is pursued, Applicant is strongly encouraged to further incorporate into the independent claim some patentably distinct functional limitations, details and/or features (if any), in order to at least overcome the applied prior art of record and expedite prosecution.

### **Conclusion**

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

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no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yemane Mesfin whose telephone number is (571) 272-3927. The examiner can normally be reached on 9:00 AM - 6:00 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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